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I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: MS Amendment, Commissioner for Patents 18.0. Box 1450, Alexandria, VA 22313-1450, on the date-shown below.

Dated: 7/7.5/06 Signature

(Maureen Divito)

Docket No.: (107262.202US1) 7090USAPO2/NBD/OPTICS/JB1 (PATENT)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Claes BJORKMAN et al.

Application No.: 10/623666

Confirmation No.: 5063

Filed: July 21, 2003

Art Unit: 2874

For:

OPTICAL READY SUBSTRATES

Examiner: S. U. Song

#### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT (IDS)

MS Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant brings to the attention of the Examiner the documents listed on the attached Form PTO-1449.

This Information Disclosure Statement is being filed after the mailing date of the first Office Action on the merits and before the mailing date of a final Office Action under §1.113 or a Notice of Allowance under §1.311. Please charge the \$180 fee to our Deposit Account No. 08-0219.

Applicant requests that the Examiner initial and return a copy of the enclosed Form PTO-1449 with the next communication.

Our records indicate that the copies of Form PTO-1449 which were previously submitted on November 3, 2003 have not been initialed and returned to us. For your convenience we have also enclosed a copy of the previously submitted PTO-1449 and ask you to also initial and return that form as well.

Dated: July 25, 2005

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By Drahl

Registration No.: 32,590

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7	Substitute for form 1449A/B/F	то		Complete if Known			
i				Application Number	10/623666		
ł	INFORMATIO	N DI	SCLOSURE	Filing Date	July 21, 2003		
l	STATEMENT	BY A	APPLICANT	First Named Inventor	Claes BJORKMAN		
	(1100 00			Art Unit	2874		
	(Use as many sheets as necessary)			Examiner Name	S. U. Song		
She	et 1	of	1	Attorney Docket Number	0107262.00202US1		

	U.S. PATENT DOCUMENTS							
Examiner	Cite	Document Number	Publication Date		Pages, Columns, Lines, Where			
Initials*	No.1	Number-Kind Code <sup>2</sup> ( if known)		Name of Patentee or Applicant of Cited Document	Relevant Passages or Relevant Figures Appear			
			10-2002	Hoel, Jeffrey H.				
		US-2004/0012041 A1	10-2002	King et al.				
		US-4,966,430	10-1990	Weidel, Edgar				
		US-5,098,861	03-1992	Blackstone, Scott C.				
		US-5,195,161		Adar et al.				
		US-5,485,021		Abe, Takao				

	FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No.1	Foreign Patent Document  Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear				

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="https://www.usplo.gov">www.usplo.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

	NON PATENT LITERATURE DOCUMENTS							
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>					
	AA	Janz et al.(1998) "Optical Properties of Pseudomorphic Si1-xGex for Si-Based Waveguides at the λ=1300-nm and 1550-nm Telecommunications Wavelength Bands". <i>IEEE Journal of Selected Topics in Quantum Electronics</i> . Vol. 4 (6)						
	AB	Schuppert et al. (1989) "Optical Channel Waveguides in Silicon Diffused from GeSi Alloy".  Electronics Letters. Vol. 25 (22)						
	AC	Soref et al. (1991) "Large Single-Mode Rib Waveguides in GeSi-Si and Si-on-SiO2" IEEE Journal of Quantum Electronics. Vol. 27 (8)						
	AD	Soref et al. (1990) "Optical Waveguiding in a Single-crystal Layer of Germanium Silicon Grown on Silicon" Optics Letters. Vol. 15(5)						
	AE	Splett et al. (1990) "Low Loss Optical Ridge Waveguides in a Strained GeSi Epitaxial Layer Grown on Silicon". Electronics Letters. Vol. 26(14)						

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner	Date
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<sup>&</sup>lt;sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

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# ÍNFORMATION DISCLOSURE IN AN APPLICATION

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Docket Number

107262.180 US1

Application Number

10/280,505

Applicant

Bjorkman et al.

Filing Date

Group Art Unit

2874

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		U	.S. Patent Docume	nts		
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATI
	3,217,856	Nov 16, 1965	G.T. Miles	197	127	Mar 28, 1963
	4,006,432	Feb 1, 1977	Streifer et al.	331	94.5 C	Oct 15, 1974
	4,100,562	Jul 11, 1978	Sugawara et al.	357	19	Apr 19, 1976
	4,368,481	Jan 11, 1983	Ohashi et al.	357	30	Jun 10, 1980
	4,438,447	Mar 20, 1984	Copeland, III et al.	357	19	Jan 18, 1982
	4,720,468	Jan 19, 1988	Menigaux et al.	437	129	Mar 29, 1985
	4,734,910	Mar 29, 1988	Izadpanah	372	18	Mar 25, 1987
	4,759,023	Jul 19, 1988	Yamaguchi	372	26	Jan 6, 1986
	4,959,540	Sep 25, 1990	Fan et al.	250	227.12	May 15, 1989
	4,980,568	Dec 25, 1990	Merrick et al.	250	551	May 22, 1989
	5,190,883	Mar 2, 1993	Menigaux et al.	437	3	May 16, 1991
	5,291,010	Mar 1, 1994	Tsuji	250	208.1	Oct 3, 1991
	5,193,131	Mar 9, 1993	Bruno	385	14	Apr 28, 1992
	5,298,787	Mar 29, 1994	Bozler et al.	257	592	Apr 1, 1991
	5,345,557	Sep 6, 1994	Wendt	395	200	Oct 4, 1989
	5,357,122	Oct 18, 1994	Okubora et al.	257	84	Sep 2, 1992
	5,382,810	Jan 17, 1995	Isaksson	257	81	Feb 4, 1992
	5,463,229	Oct 31, 1995	Takase et al.	257	59	Apr 7, 1994
	5,523,557	Jun 4, 1996	. Bruno	250	214.1	Apr 26, 1995
	5,536,974	Jul 16, 1996	Nishiguchi	257	778	May 21, 1993
	5,548,433	Aug 20, 1996	Smith	359	158	Apr 26, 1993
	5,569,934	Oct 29, 1996	Fujii et al.	257	21	Sep 28, 1995
	5,604,361	Feb 18, 1997	Isaksson	257	99	Oct 24, 1995
	5,633,527	May 27, 1997	Lear	257	432	Feb 6, 1995
	5,663,592	Sep 2, 1997	Miyazawa et al.	257	627	Jul 20, 1995
	5,728,605	Mar 17, 1998	Mizutani	438	41	Dec 19, 1996
	5,767,508	Jun 16, 1998	Masui et al.	250	227.11	May 23, 1996
	5,801,872	Sep 1, 1998	Tsuji	359	248	Feb 7, 1996

**EXAMINER** 

DATE CONSIDERED

EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP § 609: Draw Line through citation if not conformance and not considered. Include copy with next communication to applicant.

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### INFORMATION DISCLOSURE IN AN APPLICATION

Docket Number 107262.180 US1 Application Number 10/280,505

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Applicant jorkman et al.

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4

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Group Art Unit

October 25, 2002	2874
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	5,812,708	Sep 22, 1998	Rao	385	14	Dec 31, 1996`
	5,825,051	Oct 20, 1998	Bauer et al.	257	82	Sep 12, 1997
	5,828,679	Oct 27, 1998	Fisher	372	6	Jul 23, 1997
	5,854,804	Dec 29, 1998	Winer et al.	372	38	Dec 13, 1996
	5,889,903	Mar 30, 1999	Rao	385	14	May 14, 1998
	5,945,720	Aug 31, 1999	Itatani et al.	257	432	Jul 25, 1997
	5,946,438	Aug 31, 1999	Minot et al.	. 385	88	Nov 26, 1997
	5,970,081	Oct 19, 1999	Hirayama et al.	372	96	Sep 17, 1997
	6,011,296	Jan 4, 2000	Hassard et al.	257	448	Aug 30, 1996
	6,031,243	Feb 29, 2000	Taylor	257	13	Oct 14, 1997
	6,043,515	Mar 28, 2000	Kamiguchi et al.	257	103	Sep 16, 1997
	6,066,860	May 23, 2000	Katayama et al.	257	71	Dec 23, 1998
	6,093,939	Jul 25, 2000	Artigue et al.	257	99	Feb 24, 1998
	6,125,217	Sep 26, 2000	Paniccia et al.	385	14	Jun 26, 1998
	6,202,165 B1	Mar 13, 2001	Pine	713	500	Jul 23, 1998
	6,232,142 B1	May 15, 2001	Yasukawa	438	69	Dec 4, 1998
	6,288,410 B1	Sep 11, 2001	Miyazawa	257	14	Oct 6, 1997
	6,310,372 B1	Oct 30, 2001	Katayama et al.	257	291	Mar 21, 2000
	6,318,901 B1	Nov 20, 2001	Heremans et al.	385	53	Jul 26, 1999
	6,320,204 B1	Nov 20, 2001	Hirabayashi et al.	257	71	Jan 28, 2000
	6,343,171 B1	Jan 29, 2002	Yoshimura et al.	385	50	Apr 20, 1999
	6,346,717 B1	Feb 12, 2002	Kawata	257	72	Jan 4, 1999
	6,392,342 B1	May 21, 2002	Parikka	313	512	Dec 9, 1999
	6,393,183 B1	May 21, 2002	Worley	385	39	Aug 17, 1999
	6,403,395 B2	Jun 11, 2002	Hirabayashi et al.	438	69	Aug 28, 2001
	6,407,438 B1	Jun 18, 2002	Severn	257	433	Apr 30, 1998
	6,528,799 B1	Mar 4, 2003	Franz et al.	250	214.1	Mar 22, 1999
<del></del>			- · · · · · · · · · · · · · · · · · · ·	·		L

EXAMINER DATE CONSIDERED

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# FORMATION DISCLOSURE IN AN APPLICATION

Docket Number 107262.180 US1 Application Number 10/280,505

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Applicant
Bjorkman et al.

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				Filing Date	Group Art Unit	
Sheet	3	OF	4	October 25, 2002	2874	
					-	

U.S. Patent Application Publications								
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE		
	2002/0174826 A1	Nov 28, 2002	Maydan et al.	117	84	May 24, 2001		
	2002/0174827 A1	Nov 28, 2002	Samoilov et al.	117	84	Dec 11, 2001		
,	2003/0015720 A1	Jan 23, 2003	Lian et al.	257	98	Jul 18, 2001		
	2003/0025118 A1	Feb 6, 2003	Yamazaki et al.	257	79	Jul 22, 2002		
	2003/0052082 A1	Mar 20, 2003	Khan et al.	216	24	Sep 19, 2001		
	2003/0052088 A1	Mar 20, 2003	Khan et al.	216	67	Sep 19, 2001		
	2003/0072548 A1	Apr 17, 2003	Bhardwaj et al.	385	129	Oct 12, 2001		
	2003/0110808 A1	Jun 19, 2003	M'Saad et al.	65	379	Dec 14, 2001		
	2003/0113085 A1	Jun 19, 2003	M'Saad	385	129	Dec 14, 2001		
	2003/0114006 A1	Jun 19, 2003	White	438	694	Dec 17, 2001		

Foreign Patent Documents									
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION			
	WO 03/036369 A1	May 1, 2003	PCT			YES	NO.		

	Other Documents (Including Author, Title, Date, Pertinent Pages, Etc.)
A	Chen et al., "Fully Embedded Board-Level Guided-Wave Optoelectronic Interconnects," Proceedings of the IEEE, Vol. 88, No. 6, June 2000, pp. 780-793
В	Choi et al., "Self-Aligning Silicon Groove Technology Platform for the Low Cost Optical Module," 1999 Electronic Components and Technology Conference, IEEE, 1999, pp. 1140-1144
С	Irace et al., "Fast Silicon-on-Silicon Optoelectronic Router Based on a BMFET Device," IEEE Journal of Selected Topics in Quantum Electronics, Vol. 6, No. 1, January/February 2000, pp. 14-18
D	Jalali et al., "Advances in Silicon-on-Insulator Optoelectronics," IEEE Journal of Selected Topics in Quantum Electronics, Vol. 4, No. 6, November/December 1998, pp. 938-947

EXAMINER	DATE CONSIDERED				
EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP § 609: Draw Line through					

citation if not conformance and not considered. Include copy with next communication to applicant.

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**Docket Number** 

**Application Number** 

107262.180 US1

10/280,505

(Use several sheets if necessary)

ORMATION DISCLOSUBE IN AN APPLICATION

Applicant

Bjorkman et al.

Filing Date

**Group Art Unit** 

Sheet OF 4

October 25, 2002

2874

E	Kimerling, "Photons to the Rescue: Microelectronics Becomes Microphotonics," The Electrochemical Society Interface, Summer 2000, pp. 28-31
F	Kostal, "Nano-optics Changes the Rules for Optical Components," NanoOpto White Paper 2002.001, June 2002, pp. 1-6
G	Kostal and Park, "Nano-optics: New Rules for Optical System Design," NanoOpto White Paper 2002.002, June 2002, pp. 1-10
H	Motorola Labs, "The Discovery: Motorola Labs solves a 30-year semiconductor industry puzzle," June 2002
ľ	Schaub et al., "High-Speed Monolithic Silicon Photoreceivers on High Resistivity and SOI Substrates," Journal of Lightwave Technology, Vol. 19, No. 2, February 2001, pp. 272-278
1	Yabu et al., "New Design Method for Low-Loss Y-Branch Waveguides," Journal of Lightwave Technology, Vol. 19, No. 9, September 2001, pp. 1376-1384
К	Tashiro et al., "A Selective Epitaxial SiGe/Si Planar Photodetector for Si-Based OEIC's," IEEE Transactions on Electronic Devices, Vol. 44, No. 4, April 1997, pp. 545-550
L	Walker and Jahns, "Optical clock distribution using integrated free-space optics," Optics Communications 90 (1992) pp. 359-371
М	Walker et al., "Design and fabrication of high-efficiency beam splitters and beam deflectors for integrated planar micro-optic systems," Applied Optics, Vol. 32, No. 14, May 10, 1993, pp. 2494-2501

4

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP § 609: Draw Line through citation if not conformance and not considered. Include copy with next communication to applicant.